# XML

## The Language of E-Commerce

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# XML - What is it?

- Extensible Markup Language
- Similar but much more powerful than HMTL
- HTML is a subset of XML
- Anything can be described by XML
- A XML document is self describing
- A XML document contains
    - the vocabulary used
    - The structure of the document
    - The actual content
- It does not contain layout information

# XML - The Next Big Thing

- **XML is the new EDI**
  - All B2B communication will be XML based
- **Interoperability - a thing of the past**
  - platform independent
  - Network independent
  - Application independent
  - Data independent
  - Culturally independent
- **A purchase order written in Japan is recognized as a purchase order in America**

# A XML Document

```
<?xml version="1.0"?>

<!DOCTYPE EMAIL [
  <!ELEMENT EMAIL (TO, FROM, CC, SUBJECT, BODY)>
  <!ELEMENT TO (#PCDATA)>
  <!ELEMENT FROM (#PCDATA)>
  <!ELEMENT CC (#PCDATA)>
  <!ELEMENT SUBJECT (#PCDATA)>
  <!ELEMENT BODY (#PCDATA)>
]>
<EMAIL>
  <TO>Jodie@msn.com</TO>
  <FROM>Bill@msn.com</FROM>
  <CC>Philip@msn.com</CC>
  <SUBJECT>My First DTD</SUBJECT>
  <BODY>Hello, World!</BODY>
</EMAIL>
```

# How is XML Being Used

- Vertical Markets are defining standard forms
  - ◆ POs, Invoices, prescriptions, warranties etc.
- Novell is using it for directory independent replication (meta-directories)

- B2B and B2C e-commerce is and will be conducted using XML documents

# Industry Support for XML

- **Baltimore Technologies**
- IBM
- Microsoft (current browsers)
- Netscape/Sun
- Novell
- Oracle
- SAP
- Reuters
- Dunn & Bradstreet
- And everyone in the know

# Interoperability is not Enough

- In order for XML to reach it's true e-commerce potential it needs to be secured
- XML is presently secured in transit **only** by SSL
  - no non-repudiation
  - no lasting signature
  - performance issues
- Need a better solution
- Standard being defined by IETF/W3C

# X/Secure

XML Security for E-Business

# X/Secure - World's First!

- X/Secure is the world first commercial product for securing XML documents
- Implements the IETF's proposed digital signature standard
- Full PKI capabilities
  - LDAP
  - Certificates
  - CRLs
  - etc
- Plus full strength encryption algorithms

# More than a Toolkit

- X/Secure consists of
- A toolkit
  - ◆ for developers
  - ◆ gives complete flexibility
- A security application
  - ◆ stand-alone client
  - ◆ used by systems integrator
  - ◆ quick and easy integration
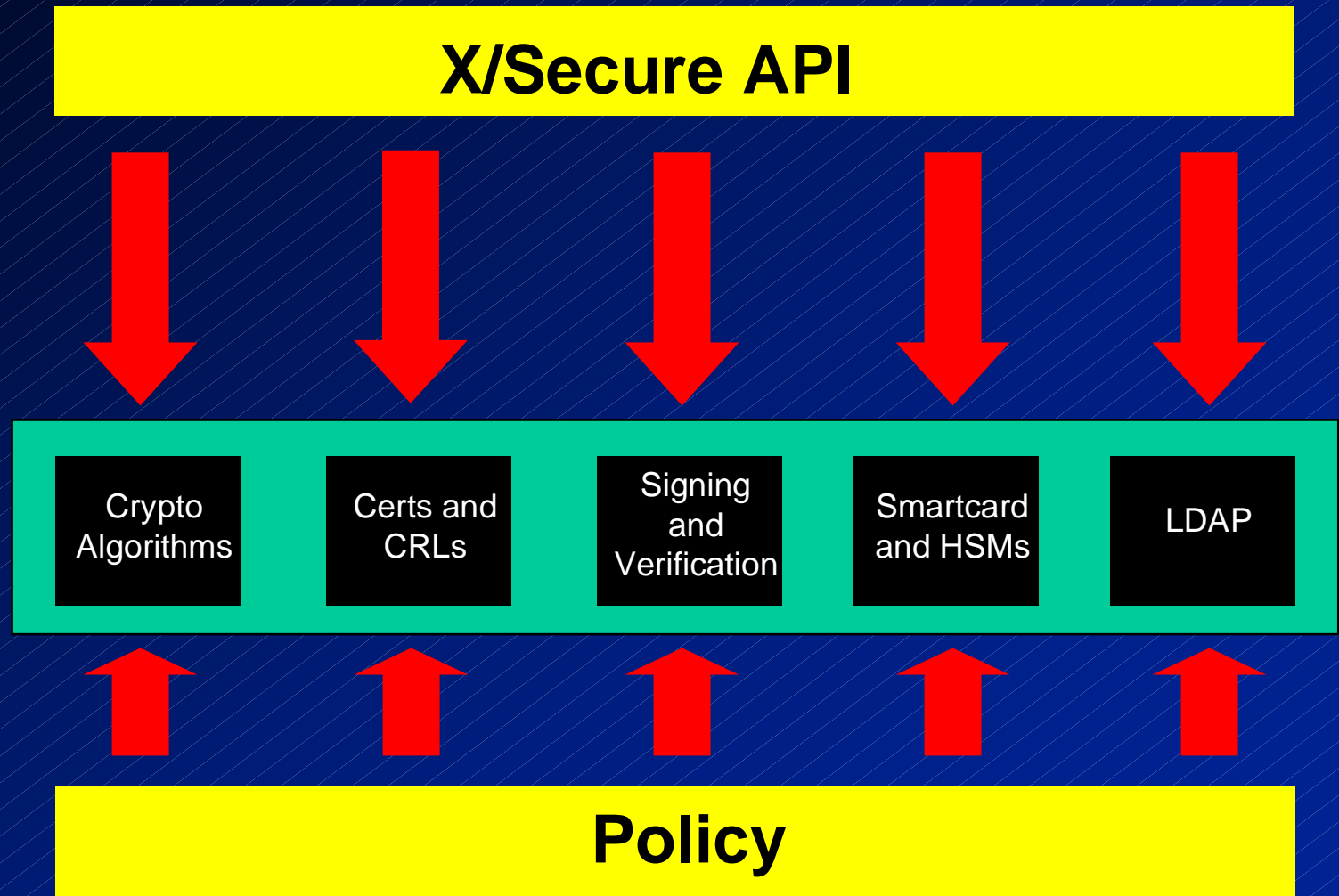
# Product Information

- First version available in Java
- Released: September 1999
- Built using J/PKI+
- Later in C++

# What Other People Say

"*The power and future for XML-based documents will surely drive the need for security-enabled software packages.*  **As** *a company with a track record in creating innovative technology, it is no surprise that Baltimore is the first to respond to this market need with the introduction of X/Secure.*"

Greg Naderi, Frost and Sullivan

# More Information

**global**
**e-security**

www.baltimore.com

- Product Manager - Caelen King; cking@baltimore.com
- www.baltimore.com/library/whitepapers/mn_xsecure.html

- More Information XML
- www.microsoft.com/xml
- www.xml.org
- www.w3c.org
- www.ietf.org

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